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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,708	12/19/2001	Shunpei Yamazaki	740756-2412	2302
31780	7590	10/05/2004	EXAMINER	
ERIC ROBINSON PMB 955 21010 SOUTHBANK ST. POTOMAC FALLS, VA 20165			FUQUA, SHAWNTINA T	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/021,708	Applicant(s) YAMAZAKI, SHUNPEI	
	Examiner Shawntina T. Fuqua	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-200 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 25-56,62,71,80,89,98,107,116,125,134,143,152,161,170,179,188 and 197 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 57-61,63-70,72-79,81-88,90-97,99-106,108-115,117-124,126-133,135-142,144-151,153-160,162-169,171-178,180-187,189-196 and 198-200.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 25-56, 62, 71, 80, 89, 98, 107, 116, 125, 134, 143, 152, 161, 170, 179, 188, and 197 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camm et al (US6594446) in view of Noguchi (US5219786).

Camm et al discloses disposing a substrate (38) in a reaction tube (48), supplying a heated gas (column 11, lines 5-9; column 20, lines 35-40) into a reaction tube (48), in a first stage heating a substrate (column 9, lines 11-13) via a light/lamp source (62), in a second stage heating a substrate (column 9, lines 14-18) via a light/lamp source (44) in a pulsing form with a cycle of one second or longer (column 13, lines 28-31, 41-50), and supplying a cooled gas (column 11, lines 5-9; column 18, lines 49-52). While Camm et al does not disclose pulsing a light/lamp source during the first stage of heating, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included this feature during the first stage as a means to preheat the substrate just as Camm et al has included this pulsing action during the second heating stage. In addition, Camm et al does not disclose a light source selected from the group consisting of a halogen, metal halide, high pressure mercury, high pressure sodium, or a xenon lamp. Noguchi discloses a halogen lamp as a light source (column 4, lines 35-36). It would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 3742

invention was made to have included the halogen lamp of Noguchi in the method of Camm et al because, a halogen lamp allows the substrate to be more uniformly heated.

Response to Arguments

3. Applicant's arguments with respect to claims 25-56, 62, 71, 80, 89, 98, 107, 116, 125, 134, 143, 152, 161, 170, 179, 188, and 197 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawntina T. Fuqua whose telephone number is (703) 305-2581. The examiner can normally be reached on Monday-Friday 8-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (703) 305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

stf
September 22, 2004


Shawntina Fuqua
Patent Examiner
Art Unit 3742